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RESEARCH REPORT

Inter-rater Reliability and Concurrent Validity of the Mental Health Need Scale

2018 Nº R-411

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Inter-rater Reliability and Concurrent Validity of the Mental Health Need Scale

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June 2018

Acknowledgements

This project involved a large number of staff required to work intensely with tight time restrictions. We are very indebted to the NHQ and regional staff who were willing to use their time to be involved in this project. We wish to acknowledge the following raters: Gurjit Toor, Karine O'Connor, Iris Bussey, Jeff Abracen, Danielle Tessier, Taylor Austin, Olabanji Balogun, Stacy Benoche, Julie Boisclair Demarble, Denise Bonsant, Dominique Bourgeois, Petrina Calder, Dave Champagne, Peggy Chen, Katelyn Craib, Jenn Denny, Kayla Deroux, Martin Deschambault, Richard Doyle, Alana Ekren, Joyce Fraser-Sears, Jonathan Gagnon, Virginie Guillard, Keira Halliday, Irowa Idahosa, Fabienne Julien, Krsna Khoyratty, Stephen Legazpi, Nathalie Malouf, Amanda McKiel, Virginia Milbourne, Jezryl Panuncialman, Rachal Pattison, Martin Poisson, Margarate Short, Lani Simmons, Deanna Slobodian, Glenn Smith, Amanda Trottier, Amanda Veness, and Ian Yeh.

At NHQ we thank Michael Martin, Donna McDonagh and Ginette Clarke who provided their expert knowledge while working out details of the study design. Morgan Steele's work on the draft detailed instruction guide was an invaluable precursor to the research project. Thank you to Chantal Lacombe for having facilitated NHQ raters recruitment and works, to Sebastian Baglole for contributing to the literature review and data entry and to Jennie Thompson for her editorial assistance and for her role in helping to shepherd the project along on time. Thank you as well to Larry Motiuk for his review of the draft of the report.

Executive Summary

Key words: *Mental health needs assessment; offender mental health, validity, reliability, rating scale.*

The Mental Health Need Scale (MHNS) was designed to assess the degree of psychiatric symptomology among offenders in Correctional Service of Canada (CSC) that would allow for their allocation to an appropriate level of care. Several earlier versions of the tool were revised based on user feedback. Since 2015, the current version of the measure has been implemented nationally in CSC. This study examined the tool's inter-rater reliability and aspects of its validity.

The total sample consisted of 150 offenders from across Canada. Just over half of the sample was comprised of men and almost two-thirds were non-Indigenous. Almost 60% were rated as low or no need and 40% were rated as either moderate or high on the MHNS. The NHQ raters were trained by one of the scale developers prior to conducting interviews. Site raters received an information package with guidelines on the use of the assessment, but no formal training. Ratings were conducted between January 15th, 2018 and March 9th, 2018. NHQ staff and site staff independently and concurrently completed the MHNS and the Clinical Global Impressions (CGI) scale for each of the 150 offenders. The overall need ratings and the CGI ratings were compared to evaluate the consistency and reliability across different raters. Concurrent validity was assessed by comparing the ratings on the MHNS to that of the CGI. Percentage agreement and Intra-class Correlation Coefficients were calculated for the overall sample as well as by men, women, non-Indigenous and Indigenous offenders.

The results produced three main findings: 1) excellent inter-rater reliability for the MHNS total score across the overall sample; excellent inter-rater reliability on the overall need score for women and Indigenous offenders; 2) strong concurrent validity between the CGI and the MHNS, for both institutional raters and NHQ raters (for the overall sample as well as across subsamples); and, 3) in general, good internal consistency of the tool in that most of the domains were significantly related to the overall rating. Very few offenders received overall ratings that did not match their domain ratings. Of note, however, the rating on concurrent disorders was only weakly associated with the overall rating indicating inconsistent rating on this domain.

The MHNS demonstrates excellent inter-rater reliability as well as substantial concurrent validity across men, women, and Indigenous offenders. However, consideration should be given to highlighting to raters the importance of assessing concurrent substance abuse and mental health problems as part of the MHNS assessment process. Recent research within CSC has demonstrated that the presence of substance use problems in addition to other mental health disorders substantially complicates treatment and that offenders with the combined disorders are at greater risk for negative outcomes. Finally, given the psychometric strength of the tool, consideration could be given to its use to systematically reassess offenders following treatment to gauge the effectiveness of the intervention.

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Introduction

Although the Risk-Needs-Responsivity principles were developed to provide a framework for evidenced-based practice in implementing correctional interventions (Andrews & Bonta, 2010), researchers have recently pointed out the same principles should apply to other types of interventions. For example, Skeem and colleagues (Skeem, Steadman, & Manchak, 2015) recommended applying the principles to mental health interventions for offenders. In these cases, "risk" would be conceived of as the assessment of the degree of severity of impairment related to the mental disorder as well as its link to offending behaviour and individuals with the highest severity of illness or at risk to relapse would be prioritized for treatment and receive the a more intensive level of service. To be consistent with the need principle, factors related to the mental disorder, as well as to criminal behaviour, would be appropriately targeted for treatment.

The assessment of need has become a required element of many agencies' policies on the care of individuals with mental health problems (Evans, Greenhalgh, & Connell, 2000). The approach requires a systematic assessment of the range and degree of need in order to develop a comprehensive intervention plan. There is an array of scales that can be used for this purpose but the individual agency must determine which would be appropriate to fulfil its particular requirements.

In the absence of validated tools that are well benchmarked and provide structured guidance for scoring, research has consistently found that unstructured professional judgment does not meet the standard for evidence-based practice (Boswell & Constantino, 2015). Indeed, the unreliability of diagnosis and assessment remains a major problem in clinical psychology and psychiatry. Lacking, as well, is the use of tools that are designed in such a way that the change in symptomology and level of need for service can be assessed following treatment. Despite the importance of tracking patients' progress through the use of validated clinical rating scales, Wood and Gupta (2017) in their recent review of the area observed that there is gross underutilization of such instruments. In the U.S. a Kennedy Forum brief recently observed that behavioural health is characterized by a "lack of systematic measurement to determine whether patients are responding to treatment" despite the fact that there are validated, easy-to-administer rating scales and screening tools available (Fortney, Sladek, & Unützer, 2015).

Adopting existing measures that have already been standardized and validated has a logic in that it saves the agency the expense of instrument design and validation and allows for comparison of results across settings. Psychometrically validated tools that assess individuals for the degree of severity of the impairment due to the mental disorder and the related intensity of service required are available and have been applied within the mental health field. Many of these tools do not require specific academic or professional credentials and some are public domain. The Positive and Negative Syndrome Scale (PANSS), Brief Psychiatric Rating Scale (BPRS), Hamilton Rating Scale for Depression (Ham-D), for example, have become widely used in clinical practice. But, as noted by Evans, Greenhalgh, and Connell (2000), these rating scales can focus on clusters of symptoms that do not necessarily take the entire clinical picture into account. The definition of need and purpose for the scales may be so specific to the agency that adopting an existing scale(s) would not be feasible or would not satisfy the requirements of the agency. In a correctional or forensic setting, for example, the assessment of the degree of impairment from a mental disorder is complicated by consideration of the criminal risk posed by the offender both while incarcerated and on release.

The Clinical Global Impression Scale (CGI) was developed out of the need to provide clinicians with an easy to administer tool that could assess a patient's current general mental health status and would be sensitive to change following treatment. Since its inception, the CGI has become a core metric in psychiatric research (Berk et al., 2008). Once again, however, the tool is specific to the assessment of mental health issues and does not make consider the criminal risk of the individual.

As part of a comprehensive mental health strategy (Correctional Service of Canada, n.d.) the Mental Health Branch of the Correctional Service of Canada (CSC) undertook the development of a Mental Health Need scale (MHNS) that would consider the need for mental health treatment and the intensity level of treatment required. The tool also incorporated ratings on the extent of the aggression and impulsivity. In conjunction with an intake assessment process that screened for psychological distress, suicidality, low cognitive function, and high symptomology of ADHD, the results of the MHNS were to be used to determine the level of need and intensity of treatment required to address offenders' mental health needs. Since its development in 2011, the rating scale has undergone a number of revisions based on feedback from the staff who had administered the tool, as well as revisions to standardize the definition of

risk levels across security settings and expand the number of levels of need associated with the model of care. The current version of the measure was implemented nationally in 2015.

The Evaluation Division has recently conducted a large scale evaluation of health services in CSC (Correctional Service of Canada, 2017). In the final report, the evaluators pointed to a number of issues related to the delivery of mental health care requiring further investigation. Among them, the report noted the lack of research confirming the psychometric properties of the Mental Health Need Scale, a measure that plays a central role in determining the provision of mental health care in CSC. The Management Action Plan for Recommendation 6 called for CSC "to conduct analysis to verify the validity and reliability of the Mental Health Need Scale." In addition, it called for provisions to strengthen the process for recording and maintaining offender level of need data.

A related recommendation was made in the recent Auditor General's report *Preparing Women Offenders for Release* (Auditor General of Canada, 2017). The audit focused on assessing whether CSC assigned and delivered correctional programs, interventions, and mental health services to women offenders in federal custody… that responded appropriately to their unique needs and helped them successfully reintegrate into the community". Recommendation 5.84 called for CSC to "ensure that it appropriately identifies women offenders who need mental health services and assigns them to the appropriate level of care."[1]

The Current Study

The following types of reliability and validity were examined for the current study:

- Within-rater reliability. The consistency between the overall need rating and ratings across the various domains were examined for both the NHQ raters and the institutional raters.
- Inter-rater reliability. Finally, the study determined the extent to which two raters would independently arrive at the same rating for an offender on the overall score and individual scale scores.

[1] It should be noted that this report did not explore whether the MHNS assigns offenders to the appropriate level of care. The Mental Health Branch annually conducts a monitoring exercise which assesses the link between the results of the MHNS and allocation to treatment. We examined the reports produced from this exercise and determined that they satisfied Recommendation 5.84 of the Auditor General's report.

- Concurrent validity. Concurrent validity of the MHNS was assess by calculating the overall agreement with the results of the Clinical Global Impressions (CGI) scale.

In summary, the analyses answered the following questions:

1) Is the MHNS a reliable and valid and tool for allocating offenders with mental health treatment needs to an appropriate treatment option?
2) Is the tool equally reliable and valid for men and women and for Indigenous offenders?

Method

Sample Information

The total sample consisted of 150 federally-sentenced offenders from across the regions. Participants were selected by staff at the sites based on the need for an assessment to be completed at that point in their sentence. At the time of the assessment, the majority of the sample were from either the Quebec (n = 42; 28.0%) or Prairie (n = 37; 24.7%) regions (see Table 1). Just over half of the sample were men (n = 85, 56.7%) and almost two-thirds of the sample were non-Indigenous (n = 92, 61.3%). Of those who had completed the intake assessment, over half were rated high on dynamic risk (n = 78/150, 52%) and over one-third were assessed as high on static risk (n = 53/150, 35%). On the MHNS assessment, almost 60% were rated as low or no need while 40% were rated as either moderate or high.

To assess the extent to which the sample was representative of the larger federally-incarcerated population, the sample was compared to a snapshot of offenders who were currently in custody (on February 25th, 2018; see Table 1). The results indicated that the sample was comparable to the population in terms of dynamic risk, but were lower on static risk. Women and Indigenous offenders were oversampled in the current sample in order to achieve the number of cases required to validate the MHNS across these offender subpopulations.

Table 1

Offender demographic information for the Mental Health Need Scale sample (n = 150) and the comparison sample (n = 13,863).

	MHNS Sample		Federal Population	
Demographic Information	***n***	**%**	***n***	**%**
Region at time of assessment				
Atlantic	26	17.3	1,286	9.3
Ontario	19	12.7	3,537	25.5
Pacific	26	17.3	2,158	15.6
Prairie	37	24.7	3,912	28.2
Quebec	42	28.0	2,970	21.4
Gender				
Male	85	56.7	13,236	95.5
Female	65	43.3	627	4.5
Indigenous	58	38.7	3,838	27.7
Dynamic Risk[a]	*n* = 102		*n* = 12,201	
Low/Medium	24	23.5	3,161	25.9
High	78	76.5	9,040	74.1
Static Risk[a]	*n* = 102		*n* = 12,209	
Low/Medium	49	48.0	4,197	34.4
High	53	52.0	8,012	65.6
MHNS score	*n* = 146			
No	6	4.1	-	-
Low	80	54.8	-	-
Medium or High	60	41.1	-	-

[a] Dynamic and Static risk are missing information on 48 offenders from the MHNS sample. MHNS = Mental Health Need Scale.

Rater Information

Two sets of raters assessed offender mental health files and conducted the assessment -- one group was from the sites across the regions and the other from National Headquarters (NHQ). There were five raters from NHQ and 36 raters from the institutions. The NHQ raters were trained by one of the scale developers prior to conducting interviews using a Guide developed as a tool to help raters become better familiar/acquainted with the scale. In the Raters information section, guidelines resulting from meetings with NHQ raters ensured that all raters had the same understanding of how to use the tool. Site raters received the information package with guidelines on the use of the assessment, but no formal training, consistent with the way the tool is used in practice. For the NHQ raters, the number of years in the mental health field ranged from 4 to 23 (M = 11.65, SD = 6.18, ***median*** = 7.00) and the majority were clinical social workers (82.1%); the remaining raters were psychologists. For the institutional raters, the number of years in the mental health field ranged from 1 to 28 (M = 10.29, SD = 7.82, ***median*** = 9.00). The majority of raters from the institutions were clinical social workers (23.2%), psychologists (18.5%), or registered psychiatric nurses (11.3%). The site rater would begin the interview with the participating offender with the NHQ rater silently observing. Following the site rater's interview, he or she would leave the room to allow the NHQ rater to ask any further questions of the participant. Each rater would conduct his or her own file reviews prior to making the ratings. These ratings were conducted between January 15th and March 9th, 2018.

Measures

Mental Health Need Scale. The Mental Health Need Scale was developed by employees of CSC to assist in the identification of the general level of offender mental health and functioning, the specific domains that require treatment, and to recommend an appropriate level of care. The scale is administered through an interview with the offender and file review on offenders with a suspected mental health need.

The tool consists of three parts. Part A is a single check box indicating "current and significant concerns regarding risk for self-injury or suicide or presenting a danger to others." The recommended treatment is immediate action. Part B determines the offenders' overall level of mental health need rated on a seven-point scale. The rating categories include no, low, some, considerable, substantial, elevated substantial, and acute/severe need. Indicators within these ratings range from "no history or current mental health signs and/or symptoms" in the no need

rating to a severity of symptoms requiring access to 24-hour care in the acute/severe need category. A range of behaviours and symptoms is considered in this overall rating including mental health history and current mental health concerns, impaired functioning, presenting a danger to oneself, cognitive impairment, disorganized thinking, self-care and hygiene, medication and treatment compliance. The recommended services associated with the ratings include self care, primary care, intermediate care, clinical discharge planning, community mental health/psychology services, and psychiatric hospital care. Part C of the MHNS rates the offenders' mental health need on 18 specific domains on a four-point scale including no need, low need, moderate need, and high need. And is only completed if the overall rating is moderate or higher. There is an option to specify that not enough information is available (see Appendix B for a copy of the tool).

Clinical Global Impressions Scale. The Clinical Global Impressions Scale (CGI; Guy, 1976, 2000) was designed to identify the general level of mental health and functioning of individuals seeking psychiatric services. Since its first publication, the CGI has become one of the most widely used assessment tools in psychiatry. It is a brief clinician-rated instrument that consists of three different global measures. 1. Severity of illness: overall assessment of the current severity of the patient's symptoms (CGI-S); 2. Global improvement: overall comparison of the patient's baseline condition with his current state (CGI-I); 3. Efficacy index: overall comparison of the patient's baseline condition to a ratio of current therapeutic benefit and severity of side effects (CGI-E). Only the severity of illness scale was used in this study since it is consistent with what is measured by the MHNS. This scale consists of a seven-point rating including normal, borderline mentally ill, mildly ill, moderately ill, markedly ill, severely ill, and among the most extremely ill patients. Descriptions of the levels we used to compare the MHNS to the CGI were provided in Busner and Targum (2007).

Analyses

Completed MHNS and CGI were obtained for each of the 150 offenders from institutional site staff across the regions (Atlantic, Quebec, Ontario, Prairies, and Pacific). Staff from the National Headquarters independently and concurrently completed the MHNS and the CGI scale for each of the 150 offenders previously completed by institutional staff. The overall need ratings and the CGI ratings were compared to the ratings obtained by the institutional staff

to evaluate the consistency and reliability across different raters. Analyses were conducted using the Statistical Package for the Social Sciences (SPSS) version 24.0 (IBM, 2016)[2].

Within-rater reliability. Reliability among raters was examined by comparing each individual raters' overall need score to the subscale scores to ensure that the overall ratings were accurate reflections of the individuals' mental health needs. Specifically, it would be expected that individuals who score high on the overall rating would generally score higher on the individual items. Likewise, for individuals who scored low on the overall rating, we would not expect to see high ratings on any of the individual items. Pearson's correlations were run between each individual domain score and the overall mental health need scale for both NHQ and institutional raters to determine whether there was a linear relationship between scores on the domains and the overall score.

Inter-rater reliability. Inter-rater reliability (IRR) was assessed through percentage agreement and intra-class correlation coefficients.

Percentage agreement. Percentage agreement was calculated for the overall sample and then separately for men, women, non-Indigenous and Indigenous offenders. Although percentage agreement calculations help quantify the consistency of responses between coders, it is often criticized for failing to correct for agreements that would be expected by chance, leading to an overestimation of agreement (Hallgren, 2012). Based on the distribution of our sample among the seven overall rating categories (i.e., no, low, some, considerable, substantial, elevated substantial, and acute/severe), we expect that there will be 38.7% agreement by chance (95% CI [30.9%, 46.5%]). As such, if we attain percentage agreements above this cut-off we can conclude that the agreement between raters was not due to chance.

Intra-class Correlation Coefficient. Intra-class correlations were also used to assess IRR. Although kappa values are commonly used for assessing IRR for categorical variables, the assumptions underlying Cohen's kappa are violated when there are more than two raters.

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[2] Missing data (including cases that did not have enough information to code—as reported by the raters) ranged from 8.0% to 78% when combined between NHQ and institutional raters (see Table A1 and A2, Appendix A). As such, percentage agreement for each MHNS domain was not calculated separately for men and women, or Indigenous and non-Indigenous offenders. ICCs were calculated across domains independently for men and women, and Indigenous and non-Indigenous offenders.

Additionally, while Cohen's kappa bases IRR on all-or-nothing agreement (Cohen, 1960), the intra-class correlation coefficient (ICC) weights disagreements based on the magnitude of the disagreements (Cohen, 1968) and can be used with three or more raters (Hallgren, 2012). For instance, if an individual is rated as high by one coder and low by another coder, that inter-rater reliability (IRR) estimate will be lower than when an individual is rated high by one coder and medium by another (Hallgren, 2012). ICCs were calculated for each of the domain scores as well as the overall MHNS score and the CGI total. Notably, using a two-way mixed, single-measures consistency ICC is identical to a weighted kappa with quadratic weights (Norman & Streiner, 2008). Higher ICC values indicate greater IRR, with results illustrating poor reliability for values less than .40, fair reliability for values between .40 and .59, good reliability for values between .60 and .74, and excellent reliability for values between .75 and 1.0 (Cicchetti, 1994).

Concurrent Validity. Concurrent validity examines whether the results of one assessment correspond to results of another established measure. Spearman's rho (ρ) was used to measure the strength of the association between the MHNS and the CGI. Values can range from 0 to 1.0, with higher values indicating a stronger association between the two scales. Specifically, values less than .19 are considered very weak, values of .20 to .39 are considered weak, .40 to .59 is considered moderate, .60 to .79 is considered strong, and .80 and higher is considered very strong (Evans, 1996). Further, values can be negative or positive with a positive value indicating that as values on one scale increase, so do values on the other scale, and a negative value indicating that as values on one scale increases, the values on the other scale decreases.

Results

The results are presented in four parts. The first section examines the within-rater reliability. The next two sections focus on inter-rater reliability (IRR) between institutional raters and raters from National Headquarters (NHQ). Percentage agreement and intra-class correlation coefficients (ICC) were used to assess the level of agreement between raters among the overall sample as well as for men and women separately and Indigenous and non-Indigenous offenders separately. The final section examines the concurrent validity between the Mental Health Need Scale (MHNS) and the Clinical Global Impressions (CGI) scale.

Within-rater Reliability

The consistency between the overall need rating and ratings across the various domains was examined for both the NHQ raters and the institutional raters. It was expected that those who are rated high on overall need would have at least one high need rating on one of the 18 domain scores and that those who are rated as low or no overall need would not have any high need ratings across the domains. For the NHQ raters, the consistency between the overall need rating and the domain ratings was good with very few offenders ($n = 4$, 2.3%) receiving overall ratings that did not match their domain ratings. For the institutional raters, the consistency between the overall need rating and the domain ratings was also good with very few offenders ($n = 5$, 3.3%) receiving an overall need rating that did not match the domain ratings.

In addition, Pearson's r correlations were calculated between domain scores and overall need score for both the institutional raters and the NHQ raters (see Table A3 in Appendix A). All domain scores were significantly associated with overall need score, with the exception of the concurrent disorders and medication adherence domains. The aggressiveness domain had a weak association with the overall need score and the suicide risk domain was weakly associated with the overall need score among NHQ raters. With the exception of the concurrent disorders, medication adherence, aggressiveness and suicide risk domains, correlations were all moderate to strong (ranged from .42 to .62 for the institutional raters and ranged from .44 to .66 for the NHQ raters).

Percentage Agreement - Inter-Rater Reliability

Percentage agreement between NHQ and institutional raters was examined for the overall sample as well as by gender and Indigenous ancestry (see Table 2). For the overall sample, the percentage agreement for the CGI scale was 64.8% and the percentage agreement for the overall need score on the MHNS was 76.6%, which is considered to be very good. There was better agreement on the MHNS than the CGI across gender, Indigenous ancestry and the overall sample. Percentage agreement on the MHNS was highest for the men and non-Indigenous offenders, whereas for the CGI scale, percentage agreement was slightly higher for the Indigenous and women offenders.

Part A of the MHNS assesses whether immediate action is required received. This item produced 100% agreement between raters (although all responses were 'No' for both sets of raters; see Table A4, Appendix A). For the domain scores, percentage agreement ranged from 54.3% to 83.4%. There were two domains that had under 60% agreement; the cognitive functioning and the mental health treatment domain (see Table A4, Appendix A). These domains may be harder to score if the rater is not making use of the results of the IQ assessment conducted at intake or if they do not yet have information on the treatment history.

Table 2

Percentage agreement between raters by gender and Indigenous ancestry (n = 150)

	MHNS – Overall need		CGI	
Sample	Percent agreement	95% CI	Percent agreement	95% CI
Overall Sample	76.6	[69.7, 83.5]	64.8	[56.9, 72.7]
Gender				
Men	81.2	[72.9, 89.5]	64.3	[54.1, 74.5]
Women	70.0	[58.4, 81.6]	66.1	[54.6, 77.6]
Indigenous ancestry				
Indigenous	75.0	[63.7, 86.3]	69.1	[56.9, 81.3]
Non-Indigenous	77.5	[68.8, 86.2]	60.9	[50.7, 71.2]

Note. MHNS = Mental Health Need scale. CGI = Clinical Global Impressions scale. CI = Confidence Interval.

Intra-class Correlation Coefficient – Inter-Rater Reliability

ICCs were calculated for the overall MHNS score and the CGI total for the overall sample (see Table A5, Appendix A) as well as for each of the domain scores (see Table A6, Appendix A). Both the CGI and overall need score from the MHNS had excellent IRR (see Table 3). The domain scores had ICC values that ranged form fair to excellent, with an average ICC of .68. Only three domains had fair IRR (motivation and treatment readiness, participation in interventions, and discharge planning), the remaining domains had between good and excellent IRR. Lower scores for these items may be expected since that would be difficult to assess early in the sentence.

Given that few of the raters were psychologists we were not able to assess whether the inter-rater reliability of the tool was better for staff with different educational backgrounds.

Table 3

Inter-rater reliability for the Clinical Global Impressions scale and the Mental Health Need scale by gender, Indigenous ancestry

	MHNS – Overall need	CGI
Sample	Magnitude	Magnitude
Overall sample	Excellent	Excellent
Gender		
Men	Excellent	Excellent
Women	Excellent	Good
Indigenous ancestry		
Indigenous	Excellent	Excellent
Non-Indigenous	Excellent	Good

Note. MHNS = Mental Health Need scale. CGI = Clinical Global Impressions scale.

ICCs were calculated for men and women independently for the overall MHNS score and the CGI score (see Table 3). Overall, the IRR result on the CGI was better for the men than for the women. For men, both the CGI and overall need score demonstrated excellent IRR. ICCs

were also calculated for men and women for each of the domain scores (see Table A7, Appendix A). For men, all domain scores had ICC values that ranged form good to excellent, with the exception of the emotion management and participation domain, which had fair IRR (.53 and .44, respectively). For the men, the average ICC across domains was .72. For the women, all domains were found to have fair to excellent IRR, with the exception of the motivation and treatment readiness domain, which had poor IRR (.37). For women, the average ICC across the domains was .64.

Finally, ICCs were independently calculated for Indigenous and non-Indigenous offenders for both the overall MHNS score and the CGI (see Table 3). For Indigenous offenders, both the CGI and overall need score demonstrated excellent IRR. For non-Indigenous offenders, the CGI score was found to have good IRR, and the overall need score from the MHNS was found to have excellent IRR.

ICCs were calculated for non-Indigenous and Indigenous offenders for each of the domain scores (see Table A8, Appendix A). All domain scores had ICC values that ranged form fair to excellent for the Indigenous offenders, with the exception of the motivation and treatment readiness domain which had poor IRR (.37). For the Indigenous offenders, the average ICC was .66. For the non-Indigenous offenders, the majority of domains were found to have good to excellent IRR, and the average ICC for the domains was .70.

Concurrent Validity

To assess concurrent validity Spearman's rho (ρ) was used to measure the strength of the association between the MHNS and the CGI among the overall sample, men and women independently, and Indigenous and non-Indigenous offenders independently (see Table A9, in Appendix A). As Table 4 demonstrates, results indicated strong concurrent validity between the MHNS and the CGI when assessed by either rater (institutional or NHQ), and across gender and Indigenous ancestry. This indicates that the MHNS and the CGI were adequately measuring the same construct.

Table 4

Concurrent validity of the Mental Health Need Scale by rater, gender, and Indigenous ancestry

	NHQ Rater	Institutional Rater
Sample	Magnitude	Magnitude
Overall sample	Very strong	Very strong
Gender		
Men	Strong	Strong
Women	Very strong	Very strong
Indigenous ancestry		
Indigenous	Very strong	Very strong
Non-Indigenous	Very strong	Very strong

Discussion

Correctional Service Canada (CSC) takes a systematic approach to the provision of mental health care to offenders. A key element of the provision of mental health care involves the assessment of need. The comprehensive assessment battery administered at intake includes self-report measures examining suicidality, attention deficit disorder symptomology, cognitive function, and level of psychological distress. Following the assessment, mental health staff conduct interviews with the offenders that, combined with the file review, allow them to rate the level of need and recommend the appropriate level of care to address the need using the Mental Health Need Scale.

The scale was designed to assess the degree of psychiatric symptomology among CSC offenders with suspected mental health problems that would allow for allocation to level of care. Several earlier versions of the tool were revised based on user feedback. Since 2015, the current measure has been applied nationally in CSC. The current research established the inter-rater reliability of the tool and examined aspects of its validity.

The results demonstrated three main findings: 1) excellent inter-rater reliability for the Mental Health Need Scale (MHNS) total across the overall sample as well as for men and women independently and Indigenous and non-Indigenous offenders independently; 2) good concurrent validity between the Clinical Global Impressions (CGI) and the MHNS, for both institutional raters and National Headquarter (NHQ) raters (for the overall sample as well as across subsamples). Indeed, the inter-rater reliability of the MHNS is stronger than for the well validated CGI; and 3) in general, good internal consistency of the tool in that most of the domains were significantly related to the overall rating. Very few offenders received overall ratings that did not match their domain ratings.

It should be noted, however, that several domain scores had only weak associations with the overall score. The rating of the concurrent disorders and medication adherence domains were weakly associated with the overall rating and the ratings on the aggressiveness domain and the suicide risk domain were weakly associated with the overall need score among NHQ raters. It is a concern that suicide risk and the presence of concurrent disorders were not associated with overall need level and it is unclear what contributed to this finding. With respect to the poor showing for the item tapping medication adherence, this could be explained by cases where the

offenders had only recently been in custody and therefore could not yet be assessed for level of compliance. The same is true for other items such as motivation for treatment and treatment readiness.

Limitations

Although the sample size was substantial for studies of this kind, the final numbers were too low to separate all analyses out by subpopulations. We should also acknowledge that the procedure involving the NHQ rater standing by while the site rater completed the interview created an awkward assessment process which could have inflated the final estimate of inter-rater reliability. Finally, missing data and missing information did lead to issues calculating inter-rater reliability for several domains.

Conclusions and Recommendations

The MHNS demonstrates excellent inter-rater reliability as well as substantial concurrent validity across men and women and Indigenous offenders.

However, consideration should be given to highlighting the importance to raters of assessing concurrent substance abuse problems as part of the overall mental health assessment process. Recent research within CSC has demonstrated that the presence of substance abuse problems substantially complicates treatment for offenders with a mental disorder and that those with the combined disorders are at greater risk for negative outcomes.

Consideration could be given to redesigning the tool so that if it is completed at a point in the sentence where the information is not available to adequately rate the item, it would not be assessed at that time.

Given the psychometric strength of the tool, consideration could be given to its use to systematically reassess offenders following treatment to gauge the effectiveness of the intervention in reducing mental health need level.

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Appendix A: Supplementary Results

Table A1

Missing data across each domain by institutional raters and NHQ raters

MHNS Domains	Institutional raters		NHQ raters	
	Missing	Not enough info	Missing	Not enough info
	%	%	%	%
Suicide risk	6.7	0.0	2.7	1.3
Self-injury risk	6.0	0.0	4.0	0.0
Aggressiveness	6.0	8.7	3.3	3.3
Thought Processes	6.0	1.3	2.7	0.7
Cognitive Function	5.3	7.3	2.7	15.3
Depression/Mania	5.3	0.0	2.7	0.0
Anxiety	5.3	1.3	2.7	0.7
Impulsivity	6.0	4.7	3.3	8.7
Emotion management	5.3	4.7	3.3	6.7
Coping skills	5.3	6.0	2.7	8.7
Interpersonal skills	5.3	6.7	3.3	8.7
Concurrent disorders	5.3	1.3	2.7	1.3
Medication adherence	4.7	8.7	2.7	4.7
Self-care skills	4.7	1.3	2.7	1.3
Mental health treatment	5.3	8.0	3.3	17.3
Motivation/treatment readiness	5.3	11.3	2.7	25.3
Participation	5.3	23.3	2.7	30.7
Discharge planning	25.3	41.3	5.3	31.3

Note. MHNS = Mental Health Need Scale.

Table A2

Amount of cases with missing data or not enough information to code across each domain by combined NHQ and institutional raters

MHNS[1] Domains	Combined raters	
	Missing AND not enough info %	Missing *n*
Suicide risk	10.0	15
Self-injury risk	8.7	13
Aggressiveness	18.0	27
Thought Processes	10.7	16
Cognitive Function	25.3	38
Depression/Mania	8.0	12
Anxiety	10.0	15
Impulsivity	17.3	26
Emotion management	14.7	22
Coping skills	17.3	26
Interpersonal skills	19.3	29
Concurrent disorders	10.0	15
Medication adherence	18.7	28
Self-care skills	9.3	14
Mental health treatment	27.3	41
Motivation/treatment readiness	34.7	52
Participation	40.7	61
Discharge Planning	78.0	117

Note. These numbers represent the total amount of cases with missing data or with not enough information to code the domain, indicated by the rater.

Table A3

Pearson correlations between domain level scores and overall need score on the MHNS for Institutional and National Headquarter raters

MHNS Domains	Institutional raters		NHQ raters	
	r	*n*	*r*	*n*
Suicide risk	.40**	140	.36**	144
Self-injury risk	.42**	141	.46**	146
Aggressiveness	.30**	128	.26**	140
Thought Processes	.60**	139	.59**	145
Cognitive Function	.50**	131	.52**	123
Depression/Mania	.46**	142	.52**	146
Anxiety	.44**	140	.60**	145
Impulsivity	.47**	134	.44**	132
Emotion management	.62**	135	.66**	135
Coping skills	.54**	133	.64**	133
Interpersonal skills	.53**	131	.60**	132
Concurrent disorders	.17*	139	.12	144
Medication adherence	.20*	129	.16	139
Self-care skills	.43**	140	.51**	144
Mental health treatment	.61**	129	.64**	119
Motivation/treatment readiness	.42**	124	.45**	108
Participation	.56**	106	.50**	100

Note. MHNS = Mental Health Need Scale. *r* = Pearson's r correlation.
*$p < .05$ **$p < .01$

Table A4

Percentage agreement between institutional and NHQ raters for the overall sample

MHNS Action Required and Domains	Percentage agreement	95% CI
Immediate Action Required (yes/no)	100.0	-
Suicide risk	81.5	[75.3, 87.7]
Self-injury risk	78.2	[71.6, 84.8]
Aggressiveness	65.6	[58.0, 73.2]
Thought processes	63.6	[55.9, 71.3]
Cognitive functioning	59.6	[51.8, 67.5]
Depression/Mania	60.9	[53.1, 68.7]
Anxiety	60.3	[52.5, 68.1]
Impulsivity	65.6	[58.0, 73.2]
Emotion management	64.2	[56.5, 71.9]
Coping skills	65.6	[58.0, 73.2]
Interpersonal skills	66.2	[58.6, 73.8]
Concurrent disorders and/or SUD[1]	81.5	[75.3, 87.7]
Psychiatric medication adherence	75.5	[68.6, 82.4]
Self-care skills	83.4	[77.5, 89.4]
Mental health treatment or contact	54.3	[46.3, 62.3]
Motivation/treatment readiness	60.3	[52.5, 68.1]
Participation in interventions	61.6	[53.8, 69.4]
Discharge planning	-	-

Note. MHNS= Mental Health Need Scale. [1]SUD = Subscale use disorder. CI = Confidence Interval. Could not examine percentage agreement for discharge planning due to large amount of missing data

Table A5

Inter-rater reliability for the Clinical Global Impressions scale and the Mental Health Need scale by gender, Indigenous ancestry, and total sample

	MHNS – Overall need			CGI		
Sample	*n*	ICC	95% CI	*n*	ICC	95% CI
Overall sample	145	.82	[.75, .86]	142	.75	[.66, .81]
Gender						
Men	85	.82	[.73, .88]	83	.78	[.68, .85]
Women	60	.79	[.85, .94]	59	.66	[.49, .78]
Indigenous ancestry						
Indigenous	56	.82	[.70, .89]	55	.76	[.62, .85]
Non-Indigenous	89	.81	[.72, .87]	87	.74	[.63, .82]

Note. ICC = Intra-class Correlation Coefficient. MHNS = Mental Health Need scale. CI = Confidence Interval. CGI = Clinical Global Impressions scale. Poor reliability for values less than .40, fair reliability for values between .40 and .59, good reliability for values between .60 and .74, and excellent reliability for values between .75 and 1.0.

Table A6

Inter-rater reliability for the Mental Health Need Scale domains for the overall sample

MHNS Domains	*n*	ICC	95% CI
Suicide risk	135	.83	[.76, .87]
Self-injury risk	137	.81	[.74, .86]
Aggressiveness	123	.75	[.66, .82]
Thought processes	134	.74	[.66, .81]
Cognitive functioning	112	.75	[.65, .82]
Depression/Mania	138	.62	[.50, .71]
Anxiety	135	.67	[.57, .75]
Impulsivity	124	.79	[.71, .85]
Emotion management	128	.66	[.54, .74]
Coping skills	124	.70	[.59, .78]
Interpersonal skills	121	.64	[.52, .73]
Concurrent disorders and/or SUD[3]	135	.71	[.62, .79]
Psychiatric medication adherence	122	.61	[.49, .71]
Self-care skills	136	.67	[.57, .75]
Mental health treatment or contact	109	.70	[.59, .78]
Motivation/treatment readiness	98	.58	[.43, .70]
Participation in interventions	89	.52	[.35, .65]
Discharge planning	33	.47	[.16, .70]

Note. MHNS = Mental Health Need Scale. ICC = Intra-class Correlation Coefficient. [3]SUD = Subscale use disorder. CI = Confidence Interval. Poor reliability for values less than .40, fair reliability for values between .40 and .59, good reliability for values between .60 and .74, and excellent reliability for values between .75 and 1.0.

Table A7

Inter-rater reliability for the Mental Health Need Scale domain scores by gender

	Men			Women		
Domains	*N*	ICC	95% CI	*N*	ICC	95% CI
Suicide risk	76	.90	[.84, .93]	59	.70	[.54, .81]
Self-injury risk	79	.83	[.75, .89]	58	.76	[.62, .85]
Aggressiveness	69	.80	[.70, .87]	54	.69	[.51, .80]
Thought processes	76	.81	[.71, .87]	58	.66	[.49, .79]
Cognitive function	66	.68	[.53, .79]	46	.78	[.64, .87]
Depression/Mania	79	.72	[.60, .81]	59	.48	[.25, .65]
Anxiety	76	.67	[.53, .78]	59	.65	[.48, .78]
Impulsivity	68	.81	[.71, .88]	56	.76	[.62, .85]
Emotion management	70	.53	[.34, .68]	58	.72	[.57, .83]
Coping skills	68	.72	[.59, .82]	56	.65	[.46, .78]
Interpersonal skills	67	.70	[.55, .80]	54	.56	[.35, .72]
Concurrent disorders	76	.73	[.61, .82]	59	.66	[.48, .78]
Medication adherence	66	.80	[.69, .87]	56	.45	[.22, .64]
Self-care skills	77	.65	[.50, .76]	59	.67	[.51, .79]
Mental health treatment	63	.66	[.49, .78]	46	.73	[.55, .84]
Motivation/treatment readiness	53	.80	[.67, .88]	45	.37	[.09, .56]
Participation	44	.44	[.16, .65]	45	.58	[.35, .75]

Note. MHNS = Mental Health Need scale. ICC = Intra-class Correlation Coefficient. CI = Confidence Interval. Could not assess the discharge planning domain due to missing data. Poor reliability for values less than .40, fair reliability for values between .40 and .59, good reliability for values between .60 and .74, and excellent reliability for values between .75 and 1.0.

Table A8

Inter-rater reliability for the Mental Health Need Scale domain scores by Indigenous ancestry

	Indigenous			Non-Indigenous		
MHNS Domain Scores	*N*	ICC	95% CI	*N*	ICC	95% CI
Suicide risk	53	.85	[.75, .91]	82	.81	[.72, .87]
Self-injury risk	53	.80	[.68, .88]	84	.80	[.71, .87]
Aggressiveness	50	.68	[.51, .81]	73	.78	[.67, .85]
Thought Processes	51	.84	[.73, .90]	83	.67	[.53, .78]
Cognitive Function	36	.69	[.47, .83]	76	.76	[.65, .84]
Depression/Mania	59	.55	[.33, .71]	84	.65	[.51, .76]
Anxiety	52	.71	[.54, .82]	83	.65	[.51, .76]
Impulsivity	49	.73	[.57, .84]	75	.80	[.71, .87]
Emotion	49	.66	[.43, .77]	79	.66	[.51, .77]
Coping skills	45	.58	[.34, .74]	79	.74	[.63, .83]
Interpersonal skills	46	.49	[.23, .68]	75	.71	[.58, .81]
Concurrent disorders	53	.79	[.67, .88]	82	.67	[.53, .77]
Medication adherence	45	.75	[.58, .85]	77	.55	[.37, .69]
Self-care skills	53	.40	[.14, .60]	83	.80	[.71, .87]
Mental health treatment	38	.82	[.67, .90]	71	.63	[.47, .75]
Motivation/treatment readiness	35	.37	[.04, .62]	63	.74	[.60, .83]
Participation	30	.46	[.12, .70]	59	.55	[.34, .70]

Note. MHNS = Mental Health Need scale. ICC = Intra-class Correlation Coefficient. CI = Confidence Interval. Could not assess the discharge planning domain due to missing data. Poor reliability for values less than .40, fair reliability for values between .40 and .59, good reliability for values between .60 and .74, and excellent reliability for values between .75 and 1.0.

Table A9

Spearman's rho by rater, gender, and Indigenous ancestry

Sample	NHQ Rater			Institutional Rater		
		Spearman's			Spearman's	
	n	ρ	*p*	*n*	ρ	*p*
Overall Sample	144	.83	< .01	146	.82	< .01
Gender						
Men	84	.77	< .01	84	.78	< .01
Women	60	.88	< .01	62	.84	< .01
Indigenous ancestry						
Indigenous	56	.85	< .01	56	.85	< .01
Non-Indigenous	88	.81	< .01	90	.80	< .01

Note. ρ = Spearman's rho

Appendix B: Mental Health Need Scale (MHNS)

Site:	Region: Choose an item.
Completed by:	Date: Click here to enter a date.
Reason for referral:	

FPS Number:
Family name:
Given name(s):
Date of birth:

Distribution: Health Care File, Offender Mental Health / Psychology File, Psychiatric File

The Mental Health Need Scale is completed by a licensed mental health professional, or mental health staff under the supervision of a licensed mental health professional. The scale consists of three main parts:

Part A: Immediate Action Required

Part B: Overall Level of Mental Health Need

Part C: Mental Health Need in Specific Domains of Functioning

There is also a section for adding **Comments**, if necessary.

Part A: Immediate Action Required	
☐	Current and significant concerns regarding risk for self-injury or suicide or presenting a danger to others.

Part B: Overall Level of Mental Health Need				
	Overall Need		Need Indicators	Service Eligibility
High	☐	**Acute/Severe Need**	Requires access to 24-hour nursing care; current severe (acute phase) mental health signs and/or symptoms; significantly impaired level of functioning; suicidal and/or actively self-injurious; behaviour might require the application of (Pinel) restraint equipment; serious neurological disorders/cognitive disabilities; totally disorganized; requires stabilization; very severe lethargy; consistent inability to maintain self-care and hygiene; may or may not be medication and/or treatment compliant; certification; urgent need for detox (med collaboration); requires psychiatric assessment and/or specialized assessments.	**Psych/Hosp** **Clinical Discharge Planning** **Community Mental Health/Psychology**
	☐	**Elevated Substantial Need**	Requires access to 24 hour support; current, sub-acute and/or chronic phase mental health signs and/or symptoms; functioning significantly affected by symptoms; suicidal and/or serious and persistent self-injury; behaviour might require the application of (Pinel) restraint equipment; serious neurological/cognitive impairment/ dementia and/or age-related cognitive and physical disabilities; seriously disorganized thinking; requires stabilization; severe lethargy; self-care and hygiene significantly compromised; may or may not be medication and/or treatment compliant; requires psychiatric assessment and/or specialized assessments.	**Psych/Hosp** **Intermediate MH Care (High Intensity)** **Clinical Discharge Planning** **Community Mental Health/Psychology**
	☐	**Substantial Need**	May require access to 24 hour support; current significant mental health signs and/or symptoms; major impairment in several areas of functioning; chronic and persistent self-injury; significant cognitive and/or age-related impairments (dementia); some psychotic symptoms (hallucinations, delusion)/disorganized thinking; may require some stabilization; may have lethargy-related concerns/complications; self-care and hygiene compromised; may or may not be medication and/or treatment compliant.	**Intermediate MH Care (High & Moderate Intensity)** **Clinical Discharge Planning** **Community Mental Health/Psychology**
Medium	☐	**Considerable Need**	Current mental health signs and/or symptoms; moderate impairments in level of functioning; history of suicidal and/or self-injurious behaviour but currently only low-level concerns; moderate cognitive impairment affecting ability to function in a regular institutional environment; may have some psychotic symptoms/disorganized thinking; may have lethargy-related concerns/complications; self-care and hygiene	**Intermediate Care (Moderate Intensity)** **Primary Care** **Clinical Discharge Planning**

			compromised; generally medication and/or treatment compliant.	**Community Mental Health/Psychology**
	☐	**Some Need**	Current mental health signs and/or symptoms; some impairment in level of functioning; may have a history of presenting a danger to self related to mental health problems, but no current concerns; noticeable cognitive impairment but able to function in a primary care setting with some assistance and monitoring; little, to no, evidence of disorganized thinking; may have some self-care and hygiene concerns; generally medication and/or treatment compliant; may need monitoring/assistance.	**Primary Care**
Low	☐	**Low Need**	History of mental health problems but no current concerns; within normal range of functioning; may have a history of presenting a danger to self related to mental health problems, but no current concerns; minor cognitive impairment but able to function in a primary care setting but may require some assistance or monitoring; little evidence of disorganized thinking; may have self-care and hygiene concerns; generally medication and/or treatment compliant; may need monitoring/assistance.	**Primary Care Self Care**
No	☐	**No Need**	No history or current mental health signs and/or symptoms; no impairments in functioning; no history of suicidal or self-injurious behaviour; no evidence of disorganized thinking; no problems with self-care or hygiene; promotion of well-being.	**Self Care**

Part C: Mental Health Need in Specific Domains of Functioning

⇨ Indicate the level of need in each domain to assist with case formulation/identify possible targets for intervention.

Domain	No Need	Low Need	Moderate Need	High Need
Suicide Risk ☐ Not enough information	☐ No history of suicide attempts. No indication of current thoughts about suicide.	☐ History of suicide attempts, but likelihood of suicidal behaviour is currently low.	☐ May have current thoughts of suicide, but does not have a plan/is not demonstrating precursor behaviour(s). The threat of suicide is not considered imminent.	☐ Has current thoughts about suicide, may have a plan, and precursor indicators are present. There is imminent risk to commit suicide.
Self-Injury Risk ☐ Not enough information	☐ No history of self-injurious behaviour. No current thoughts about self-injuring.	☐ History of self-injurious behaviour but no current indicators of concern. Likelihood of self-injurious behaviour is currently low.	☐ History of self-injurious behaviours. Some indicators suggest elevated likelihood of self-injurious behaviour, but the risk is not considered imminent.	☐ There is imminent risk to engage in self-injurious behaviour. There may be evidence of recent self-injury.
Aggressiveness *(e.g., intimidation, threats, muscling for medications, destruction of property, assault, sexual impropriety/ assault, barricading)* ☐ Not enough information	☐ No history of aggressive behaviour.	☐ Rare /infrequent aggressive behaviour of mild to moderate severity. Tends to respond in verbally aggressive ways rather than physical. Little to no current concerns.	☐ Occasional aggressive behaviour of mild to moderate severity. Such behaviour can result in injury when it occurs, but no imminent risk to safety of others is currently indicated.	☐ Frequent and/or severe aggressive behaviour. Such behaviour often results in significant harm to others or objects in the environment. An imminent risk to safety of others is currently indicated.
Thought Processes/Content ☐ Not enough information	☐ Thought processes and content within the normal range.	☐ Minor disturbances in thought processes/content. May have intermittent instances of tangential speech or illogical thinking. No current hallucinations or delusions. Level of functioning not impaired at all (or only minimally).	☐ Some disturbances in thought processes or content, causing moderate impairment in level of functioning. May have some delusions or brief or occasional hallucinations.	☐ Serious disturbances in thought processes/content that seriously impairs functioning. May have frequent or ongoing delusions and/or hallucinations.

Cognitive Functioning ☐ Not enough information	☐ Intellectually in the normal range. No indication of cognitive deficits.	☐ Some indication of cognitive deficits, but limited impact on level of functioning. Can participate in regular correctional programming, regular unit environment, and mental health interventions.	☐ Significant cognitive deficits, with clear impact on level of functioning. Requires some adaptation of correctional programs, unit environment, and mental health interventions.	☐ Severe cognitive deficits, which significantly impair functioning in a broad range of domains. Requires adaptation of living environment. Even with substantial adaptations, makes only limited progress in interventions.
Depression/ Mania ☐ Not enough information	☐ No evidence of signs or symptoms of depression or mania.	☐ Occasional periods of depressed mood or irritability. There may be mild and intermittent impairment in level of functioning.	☐ Periods of mild to moderate depressed mood/irritability or hypomania, which cause moderate impairment in level of functioning.	☐ Periods of severely depressed mood and/or mania, currently causing significant impairment in level of functioning.
Anxiety ☐ Not enough information	☐ No evidence of signs or symptoms of anxiety.	☐ Occasional periods of anxiousness. There may be mild and intermittent impairment in level of functioning.	☐ Periods of mild to moderate anxiousness, which cause moderate impairment in level of functioning.	☐ Periods of intense anxiousness, currently causing significant impairment in level of functioning.
Impulsivity ☐ Not enough information	☐ No evidence of impulse control problems; nearly always thinks before acting.	☐ Typically thinks before acting, but behaviour is occasionally impulsive in some situations. Minor impairment in functioning.	☐ Frequently acts before thinking in a variety of situations, causing moderate impairment in level of functioning.	☐ Nearly always acts before thinking. Demonstrates impulsive behaviour in most situations and contexts, causing significant impairment in level of functioning.
Emotion Management ☐ Not enough information	☐ No evidence of problems with emotion management.	☐ Usually able to respond to emotional challenges but requires some assistance on occasion; presents with a blunted affect and/or normally responds in a passive manner.	☐ Difficulty dealing with emotions; tendency to withdraw and/or potential for short-lived intense reactions when faced with emotional challenges.	☐ Significant difficulty managing emotions; prone to emotional outbursts or behaviours; possibility of crisis reaction when faced with emotional challenges.
Coping Skills ☐ Not enough information	☐ Good coping skills. Deals with emotions and adverse events and resolves problems effectively and appropriately.	☐ Generally copes effectively with emotions, problems and adverse events. Level of functioning may occasionally be minimally impaired.	☐ Poor coping skills. Frequently copes ineffectively or engages in maladaptive behaviour in response to emotions, problems, and adverse events. Moderate impairment in level of functioning.	☐ Very poor coping skills. Unable to regulate emotions or deal with problems or adverse events effectively, usually responding with ineffective or maladaptive behaviours. Significant impairment in level of functioning.

Domain	No Need	Low Need	Moderate Need	High Need
Interpersonal Skills ☐ Not enough information	☐ Significant interpersonal strengths. Forms and maintains close relationships.	☐ Some difficulty with social/interactional skills, but level of social functioning is not, or very minimally, impaired.	☐ Significant difficulty with social/interactional skills that often has a considerable impact on social functioning.	☐ Very significant problems with social/interactional skills that seriously impair level of social functioning.
Concurrent Disorders and/or Substance abuse ☐ Not enough information	☐ No history of substance abuse.	☐ Limited history of substance use/abuse, that has a negative impact on medication compliance and/or ability to effectively function, but no evidence of current substance abuse.	☐ Some current abuse of substances, which has a negative impact on medication compliance and/or cause moderate impairment in functioning.	☐ Frequent and/or severe current abuse of substances, causing significant impairment in level of functioning and is related to mental health relapse; drug seeking within institution.

Psychiatric Medication Adherence ☐ Not enough information	☐ Cooperates well with prescribed medication regime or no need for medication.	☐ Reasonably adherent to medication regime, but may require some prompting and encouragement.	☐ Quite resistant to taking prescribed medication. Intermittent cooperation, may often require significant prompting and encouragement.	☐ Does not take prescribed medication. Does not respond to prompting and encouragement to do so.
Basic Life/Self-care (Activities of Daily Living) Skills *(hygiene, laundry, cell care)* ☐ Not enough information	☐ Carries out self-care activities effectively without prompting.	☐ Carries out self-care activities effectively, however, may require some prompting/reminders.	☐ Poor self-care. Unable or unwilling to carry out self-care activities effectively without substantial support.	☐ Very poor self-care. Typically does not carry out self-care activities even with substantial support. May refuse support.
Mental Health Treatment or Contact ☐ Not enough information	☐ No need for mental health contact.	☐ Supportive contacts or check-ins to help maintain stability.	☐ Working with MH to address specific issue(s). Engaged in short- or long-term treatment/counselling.	☐ Numerous issues and requests/demands for contact. Significant potential for crises to arise abruptly.
Motivation/ Treatment Readiness ☐ Not enough information	☐ No concerns related to motivation and/or treatment compliance.	☐ Experiences hesitation on some occasions but is usually interested in working with staff and engaged in activities.	☐ Somewhat ambivalent about desire/need to engage in activities. Requires considerable encouragement to participate.	☐ Uninterested in engaging in interventions. Resistant to working with staff.
Participation in Interventions *(e.g., treatment, correctional programs, school, constructive use of leisure time)* ☐ Not enough information	☐ Participates well in recommended interventions and/or activities.	☐ Participates reasonably well in recommended interventions and activities, but may require some prompting and encouragement.	☐ Quite resistant to participating in recommended interventions/activities, despite clearly explained benefits. Intermittent cooperation; may require significant prompting and encouragement.	☐ Does not participate in recommended interventions/activities. Does not respond to prompting and encouragement to do so.
Discharge Planning ☐ Not enough information	☐ Pending release date and there is no need for discharge planning services.	☐ Does not have a pending release date, is not currently seeking a conditional release and/or is not interested in engaging in the discharge planning process.	☐ Pending release date and presents with some mental health and/or community reintegration issues. May be ambivalent about engaging in the discharge planning process.	☐ Pending release date and presents with significant mental health and/or community reintegration issues. Social Worker is assisting with the possible parole application/release of an offender who requires significant assistance.

Comments
Click here to enter text.

_____

Signature of mental health professional completing MH Need Scale *Date*

Mental Health Need Scale - Instructions for Use

ABOUT THE SCALE

The Mental Health Need Scale does *not* constitute a mental health assessment in and of itself, nor does it define the assessment process. It is simply a way of organizing findings and documenting the results of an assessment process. The Mental Health Need Scale is completed by a licensed mental health professional, or mental health staff under the supervision of a licensed mental health professional. The scale consists of three main parts: ratings of **Overall Mental Health Need**, ratings of **Mental Health Need in Specific Domains of functioning**, and a notification that **Immediate Action** is required. There is also a section for adding **Comments**, if necessary.

The three parts of the scale are to be rated independently.

All needs and strengths areas should be taken into consideration when assessing the offender's overall level of mental health need. It is important, however, not to be too influenced by the results of the ratings in the specific domains – the overall need rating must be based on the offender's best fit with category criteria on the Overall Level of Mental Health Need Scale. For example, an offender with significant needs in specific domains may be functioning well overall. The overall level of impairment in functioning will determine the urgency/priority of interventions.

WHEN TO USE THE SCALE

As outlined in the ***Institutional Mental Health Services Guidelines*** and the ***Community Mental Health Service Delivery Guidelines***, the scale is required to be completed as part of the triage process when an offender is first assessed by a mental health professional. It is not necessary to complete the scale every time an offender is seen. If there is already a rating on file, doing an update is at the discretion of the mental health professional. Make a note as to whether the present assessment should be considered as an update to previous assessments.

As per the ***Service Delivery Guidelines for Psychiatric Hospital and Intermediate Mental Health Care Guidelines***, the scale is also required to be completed as part of the standard referral package.

⇨**Referral Considerations:**

1. The offender must meet the mental health indicators for the appropriate level of care.
2. Population management concerns of best fit will be considered; the offender must be able to function within the structure of the receiving unit.

The scale may be used at key points throughout the offender's sentence at the discretion of the mental health professional.

INSTRUCTIONS FOR RATING

- Read these guidelines and review the scale before starting to use it.
- Offenders should only be rated if there is enough information based on the assessment for the rating to be accurate. If an offender is seen in passing for a few minutes you likely will not have sufficient information for a rating. If an offender is seen for a general assessment interview, and the file is reviewed, there will likely be enough information to rate the offender's level of mental health need.
- If there is not enough information to rate the offender in one of the individual domain areas, indicate this in the "*not enough information*" box on the form.
- The ratings that are chosen should be guided by the best fit for the offender, even though some of the thinking and/or behaviours at that level may not be characteristic.
- Ratings should be based on the offender's level of impairment and consideration of what services he/she requires at the time the scale is administered. History is useful in distinguishing offenders with No need from offenders with Low need, however, offenders should not be rated as Moderate or High need based on history alone. The emphasis should be on the offender's current presentation and level of impairment.

OVERALL LEVEL OF MENTAL HEALTH NEED

- Considering the level of need identified in each of the Specific Domains of Functioning in Part C, assign an Overall Level of Mental Health Need based on the criteria defining each level, taking into account the offender's mental health, level of functioning, and the presence or absence of specific problems requiring intervention and/or placement considerations. Note that offenders should not be rated based on history alone; the offender must present with current mental health signs and/or symptoms and impairment in level of functioning.

- This rating can be used to help mental health professionals assign priorities to cases based on identified need, contributing to triage and placement decisions. In addition, on a system level, the overall assessment of level of mental health need provides a basis for describing the population of offenders who receive services.

MENTAL HEALTH NEED IN SPECIFIC DOMAINS OF FUNCTIONING

- In this section, the mental health professional rates the offender's level of need in18 individual domain areas. These ratings can provide specific information to assist with case formulation and identify possible targets for intervention.

IMMEDIATE ACTION REQUIRED

- This section must be completed when the rater assesses the offender as having current and significant concerns regarding risk for self-injury or suicide or presents a danger to others.

COMMENTS

- The comments section can be used to make note of significant factors which may contribute to the offender's current level of need, or to provide any further explanations that seem necessary. For example, raters might mention factors such as negative events or stressors, level of engagement in treatment plan, level of support in the institution and/or community, and access to resources in the community.
- Entering comments in this section is entirely at the discretion of the rater – in many cases, comments may not be required.